10-11-2007

Washington University Record, October 11, 2007

Medical News: Prostate cancer care aided by new technologies 3

Assembly Series: Spiritual life on the WUSTL campus 4

Washington People: Ferkol is on the front lines of pulmonary research 8

Record

Oct. 11, 2007

record.wustl.edu

Washington University in St. Louis

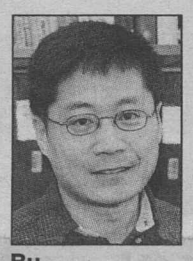
WUSTL researchers uncover a potential cause of Alzheimer's

Cholesterol metabolism links early- and late-onset of the debilitating disease

By Gwen Ericson

Although the causes of Alzheimer's disease are not completely understood, amyloid-beta (A-beta) is widely considered a likely culprit — the "sticky" protein clumps into plaques thought to harm brain cells.

But now School of Medicine researchers have uncovered evidence strengthening the case for another potential cause of Alzheimer's. The finding also represents the first time scientists have found a connection between early- and late-onset Alzheimer's.



Bu

In a study published in the Oct. 4, 2007, issue of the journal Neuron, the scientists report that when A-beta is made, a small bit of protein also is released that can regulate cholesterol levels in the brain. The discovery adds weight to the less-prominent theory that abnormal brain cholesterol metabolism plays a role in the mental decline seen in Alzheimer's patients.

"Our research links two major determinants for early- and late-onset Alzheimer's disease," said senior author Guojun Bu, Ph.D., professor of pediatrics and of cell biology and physiology. "And we've shown that the process that links them is implicated in brain cholesterol metabolism."

The report follows closely on another study reporting that statins, widely prescribed cholesterol-lowering drugs, could prevent certain neural changes that signal the progression of Alzheimer's disease. Additional earlier studies support the idea that statins could benefit Alzheimer's patients; however, other studies have found no such protective effect from statins.

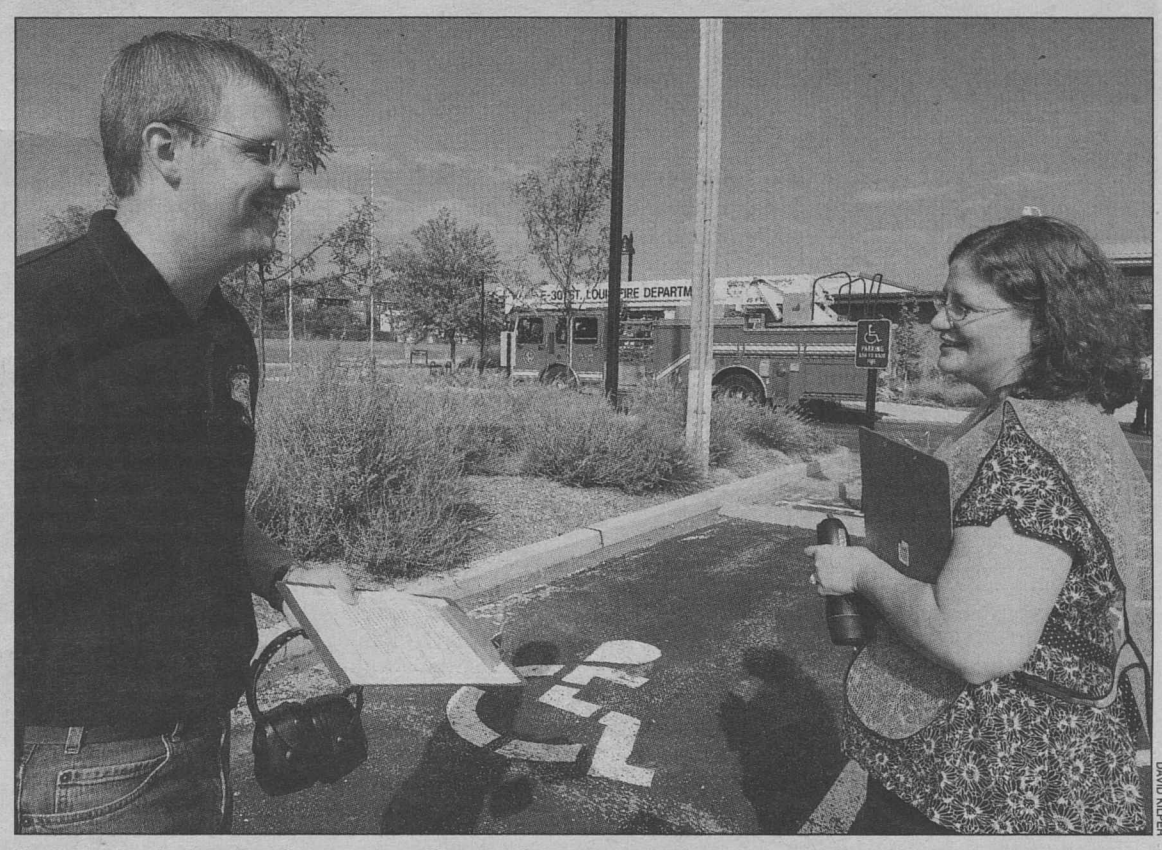
"The studies of statins and Alzheimer's have generated quite a bit of controversy," Bu said. "Those that show positive effects from statins seem to suggest that high cholesterol could increase the risk of Alzheimer's disease. But other evidence contradicts this idea."

In fact, the brain needs a high level of cholesterol, Bu said.

"The brain represents only about 2 percent of your body weight, but actually has about 20 percent of your body's cholesterol," he said. "There is strong evidence that cholesterol is important for synaptic function and is an essential component of cell membranes in the brain, and I believe partial defects in the regulation of cholesterol metabolism in the brain likely contribute to the development of Alzheimer's."

In the current study, Bu and colleagues found an aspect of cholesterol transport and metabolism in the brain was a link be-

See **Cholesterol**, Page 6



DAVID KILPER

Mark Bagby, University disaster coordinator, discusses the success of Monday's fire drill at the North Campus with Mary Dillender, real estate coordinator and chair of North Campus' Safety Committee.

National Fire Prevention Week puts a priority on campus safety

By Jessica Daues

Last March, food left unattended while cooking started a fire in a first-floor residence of Millbrook Apartments. Fortunately, no one was hurt, but the blaze temporarily displaced 51 students and cost the University just under $174,000 in damages.

Millbrook's was just one of five serious fires on University property in the past three years. In an effort to prevent No. 6, the University is recognizing this week, Oct. 7-13, as National Fire Prevention Week and is working to educate students, faculty and staff on how to prevent and what to do in case of a fire.

"We had celebrated National Fire Prevention Week in the past," said Mark Bagby, University disaster coordinator, "and I pushed to revive it to be sure faculty, staff and students are cautious and will know where to go after evacuating a building."

Since 2000, there have been 113 campus-related fire fatalities in the United States, according to Campus Firewatch, a monthly newsletter that focuses on

See **Fire**, Page 6

Botanical 'cloak-and-dagger' Genetic differences in clover make one type toxic

By Tony Fitzpatrick

That clover necklace you make for your child could be a ring of poison.

That's because some clovers have evolved genes that help the plant produce cyanide — to protect itself against herbivores such as snails, slugs and voles.

Other clover plants that do not make cyanide are found in climates with colder temperatures.

So, in picking your poison, er, clover, ecology and geography play important roles.

A plant evolutionary biologist at Washington University is trying to get to the bottom of this botanical cloak-and-dagger tale. Kenneth Olsen, Ph.D., assistant professor of biology in Arts & Sciences, is looking at the genetics of a wide variety of white clover plants to determine why some plants make cyanide and some don't — what biologists call polymorphism, or two types.

"We are documenting the effect of natural selection at the DNA sequence level to understand the molecular evolution of this polymorphism," Olsen said. "Usually, researchers study model plants such as Arabidopsis or tobacco to understand genetics. But with clover we have a system where we can look in detail at DNA sequence variation and at the same time have a thorough understanding of the plant's ecology."

In a study recently published in the journal Molecular Ecology, Olsen and his colleagues report findings on the molecular basis of the cyanide polymorphism.

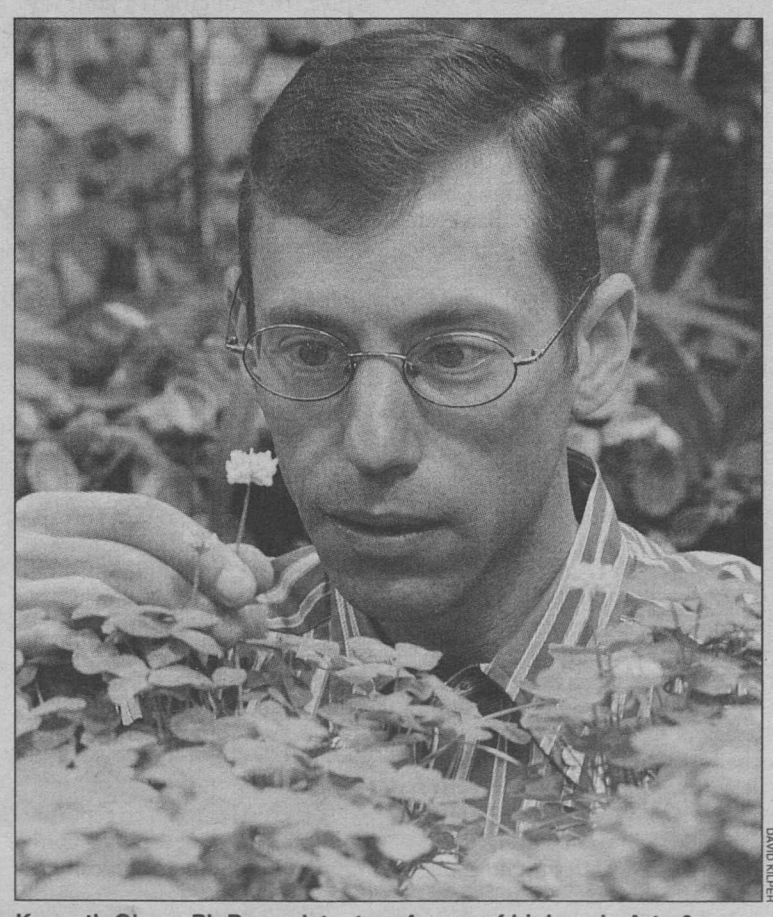
White clover is native to Europe and Asia and was introduced some 300 years ago in North America.

The cold factor-acyanogenic relationship has been known a long time in Europe and Asia and it re-evolved in North America when the plant was introduced, indicating that natural selection was a powerful force in shaping the geographical distributions of the two plant types.

The genetic basis behind cyanide production in clover plants boils down to just two genes.

"A cyanogenic plant sets up a little cyanide bomb in the cell," Olsen said. "You have a cyanogenic glucoside — basically a sugar with a cyanide group stuck onto it, in the cell vacuole, and then in the cell wall there is an

See **Clover**, Page 7



DAVID KILPER

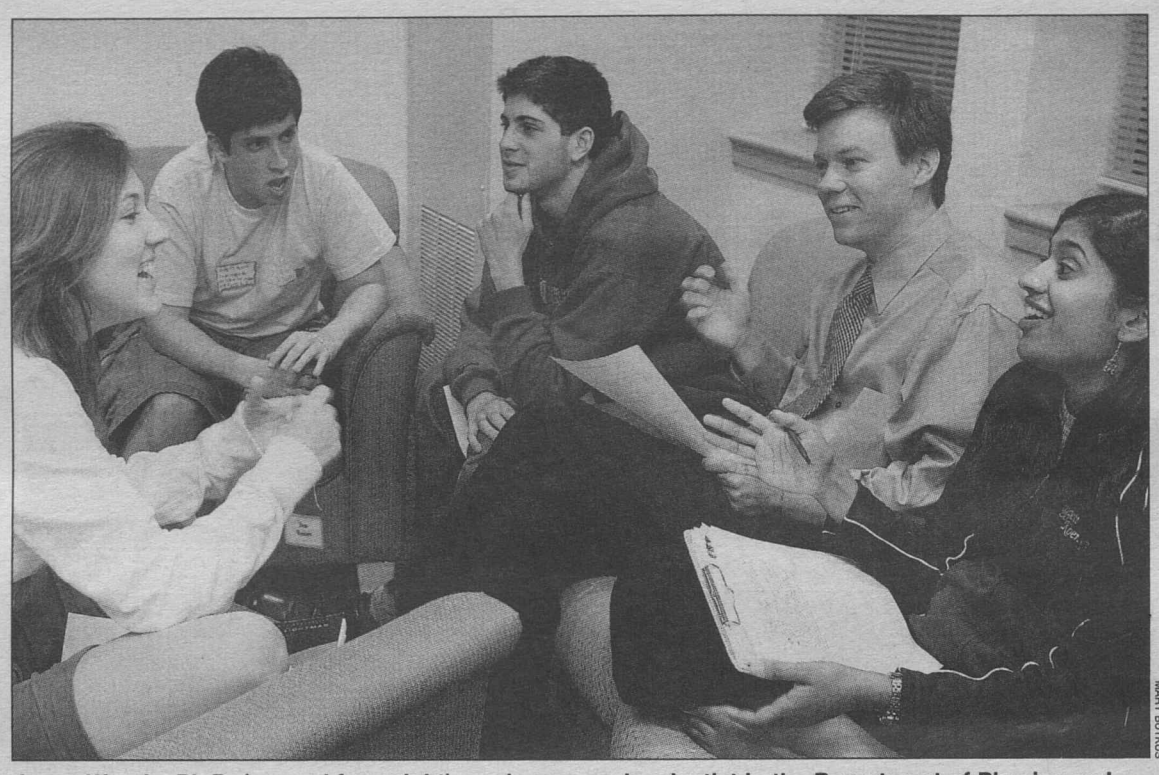
Kenneth Olsen, Ph.D., assistant professor of biology in Arts & Sciences, is studying the genetics of two types of clover to determine why one is toxic and the other isn't.

Trustees meet, issue tribute

At its fall meeting, the Washington University Board of Trustees received a report by Raymond E. Arvidson, Ph.D., the James S. McDonnell Distinguished University Professor and chair of the Department of Earth & Planetary Sciences in Arts & Sciences, according to Chancellor Mark S. Wrighton. Arvidson reviewed the research of his department in a talk titled "Geology, Habitability, and Life on Mars."

Trustees issued a tribute to Trustee J. Stephen Fossett, for whom a search continues following the disappearance of his airplane over Nevada. The tribute, which will be shared with Fossett's wife, Peggy, unanimously endorses the important role Fossett has played on the board and recognizes his support for the Fossett Laboratory for Virtual Planetary Exploration in Earth and Planetary Sciences and for undergraduate research fellowships in environmental sustainability for

See **Board**, Page 2



MARY BUTKUS

Jason Woods, Ph.D. (second from right), senior research scientist in the Department of Physics and assistant dean in Arts & Sciences, leads a group discussion as part of the Freshman Reading Program, one of the first University activities in which the Class of 2011 participated.

Freshman class settles into campus life

BY JESSICA DAUES

The Class of 2011 traveled across town and across oceans to attend Washington University.

Approximately 1,340 first-year students from all over the world — 20 countries, 49 states, the District of Columbia, and Puerto Rico — joined the campus community in August.

The diversity of the freshman class has impressed Lauren Barth, a first-year student and Danforth Scholar from Chattanooga, Tenn. "I've met people from California and Connecticut, and they're some of my best friends here," Barth said.

"I've met several people from Turkey. I'm around a lot of people not only from the Midwest, but also from the Northeast, West — areas to which I've never been and from which I've never met anyone."

The first-year students were chosen from more than 22,000 applicants and are approximately 50 percent male and 50 percent female.

"The decisions this year were the most challenging in the University's history, given the overall number of applicants and the size of the freshman class," said Nanette Tarbouni, director of undergraduate admissions.

Now, in mid-October, first-year students have already become a vital part of the University and local communities by joining student organizations, learning and working with professors and participating in service projects.

"It's been easy to meet people and get to know everyone I've met," Barth said. "Everyone seems to sense the importance of building the community."

Tarbouni also noticed how easily the freshman class has settled into campus. "We can't wait for them to become our new tour guides!" she said.

Parents Weekend kicks off with classes, tours

BY NEIL SCHOENHERR

Parents Weekend 2007 begins Friday, Oct. 12, and runs through Sunday, Oct. 14. Activities include parents joining their sons and daughters for classes, art exhibits, open houses, tours, musical productions and a tailgate party before Saturday's football game.

Registration and check-in for parents begins at 8:30 a.m. Friday in the Women's Building Formal Lounge.

The day will include open classes, a walking tour of the Central West End, a Cahokia Mounds tour, open houses and the Performing Arts Department in Arts & Sciences' production of the musical "1940s Radio Hour."

On Saturday, Chancellor Mark S. Wrighton will give a talk titled "The Undergraduate Experience" beginning at 10 a.m. in Brown Hall, Room 100. He will discuss the educational experience of the University's undergraduates.

The football game, which begins at noon at Francis Field, will feature the Bears taking on University Athletic Association rival University of Chicago. Adult tickets are $5; student admission is free with a WUSTL ID.

A tailgate party will start at 10:30 a.m. at Francis Field. Tickets for the tailgate can be purchased online at parents.wustl.edu/weekend.

The rest of the day will include tours of St. Louis, a fashion show by students from the Fashion Design Program, swing dance lessons and dancing, a jazz concert and a hypnotist comedy show.

On Sunday, a walking tour of historic Forest Park will kick off the day at 8:30 a.m.

Brunch will follow from 11 a.m.-2 p.m. in Center Court in Wohl Student Center and in The Village.

For more information and a full list of activities, call Danielle Bristow, director of orientation and parents weekend programs, at 935-8350; or visit parents.wustl.edu/weekend.

A closer look at eating disorders

'Thin' is not in: Film profiles women in treatment

"Eating disorders now affect one in seven young American women and have become a mental health epidemic."

Those are the words of filmmaker Lauren Greenfield, who walked into a facility for eating disorders, The Renfrew Center of Coconut Creek, Fla., to shoot the documentary "Thin." Her words were transformed into faces of teenagers and young women struggling to become healthy, both in body and mind. Airing on HBO in November 2006, "Thin" became one of the cable network's most highly rated documentaries.

On Wednesday, Oct. 17, the film will be shown at 7 p.m. in McDonnell Hall, Room 162, followed by a panel discussion with health professionals. It will be moderated by Barbara Baumgartner, Ph.D., associate director and senior lecturer of Women and Gender Studies in Arts & Sciences, who introduced Greenfield on campus last March as part of the Assembly Series.

"It's important to identify these women as suffering from an illness, to examine the underlying complex causes of the illness, and send out the message that it's never too late to begin the healing process," Baumgartner said.

> **"It's important to identify these women as suffering from an illness."**
>
> BARBARA BAUMGARTNER

Baumgartner will be joined by Connie Diekman, R.D., director of University nutrition and president of the American Dietetic Association; Rebecca Lester, Ph.D., assistant professor of anthropology in Arts & Sciences; Lisa Sinden-Gottfried, Ph.D., psychologist in Student Health Services; and student panelist Annie Lascoe.

For more information, call 935-7130.

Board

Trustees issue a tribute to Steve Fossett

– from Page 1

the Arts & Sciences Pathfinder Program. The Fossetts also endowed a distinguished professorship in marketing at the Olin Business School.

"In recognition of the important role he has played and we hope he will continue to play here at Washington University, the Board has expressed its lasting affection and deep gratitude to Steve Fossett for enriching our lives. We extend our admiration and deep concern to Peggy Fossett, who with Steve has been an enthusiastic, generous partner and ambassador of the University," Wrighton said. (The full text of the resolution can be viewed online at record.wustl.edu/news/page/normal/10262.html.)

In his report to the Trustees, Wrighton noted that the school year has begun with an extraordinarily strong freshman class of approximately 1,340 students, nearly all of whom graduated within the top 10 percent of their high-school classes. The class represents 49 states, the District of Columbia, Puerto Rico and 20 countries. Divided equally between male and female students, the class is approximately one-third minority and international students.

Wrighton reported that the McDonnell International Scholars Academy continues to grow and develop with the addition of partner universities from Chile, Brazil and Hungary, bringing the total to 23 institutions that will work with the University in this pioneering effort to serve and educate some of the world's brightest and best students. Planned are visits to additional leading universities in Africa, Europe and other parts of Asia.

The chancellor reviewed progress on construction at both the Danforth and Medical Campuses as well as reviewing the University acquisition of the former Christian Brothers College High School property from Concordia Seminary. This 8.2-acre site contains eight buildings for which long-range plans are being studied. In the meantime, work will begin soon on renovating and improving the gymnasium and athletic fields for the use of intramural and club sports by undergraduate students.

> **"... the Board has expressed its lasting affection and deep gratitude to Steve Fossett for enriching our lives. We extend our admiration and deep concern to Peggy Fossett, who with Steve has been an enthusiastic, generous partner and ambassador of the University."**
>
> MARK S. WRIGHTON

Construction on the Social Sciences/Law building continues on schedule, as does work on the William H. and Elizabeth Gray Danforth University Center. Both Danforth Campus buildings are slated for occupancy in August 2008, and two floors of underground parking already are in use in the Danforth University Center garage. Also coming online at that time will be the Village East Residence Hall at the corner of Forest Park Parkway and Throop Drive. Wrighton noted that a naming gift will be announced soon for the Social Sciences/Law building.

Reviewing initiatives announced since the last Trustee meeting, Wrighton described the International Center for Advanced Renewable Energy and Sustainability (I-CARES), in which the University will invest $55 million in renewable energy research and facilities. Under the directorship of Himadri B. Pakrasi, Ph.D., the George William and Irene Koechig Freiberg Professor of Biology in Arts & Sciences and professor of energy in the School of Engineering, I-CARES will encourage University-wide and external collaborative research in the areas of renewable energy and sustainability.

At the Medical Campus, Wrighton announced that a groundbreaking will be held Oct. 30 for a basic research building as part of the BioMed 21 initiative. The building is a joint development effort with BJC Healthcare and Barnes-Jewish Hospital, with roughly half of the space to be dedicated to the patient-care mission of Barnes-Jewish Hospital. The building will be supported by a significant naming gift to be announced at the event and will be the largest building constructed at the University in its history.

In other news, it was announced that 12 students have been awarded Fulbright Scholarships for the 2007-08 academic year. The recipients will be studying in 10 different countries.

In closing his remarks, Wrighton noted that the football team was off to its best start since 2001 under Larry Kindbom, now entering his 19th season as head coach and as the winningest coach in University history with an overall record of 119-67.

Wrighton also reviewed the extraordinary success of the tennis, cross country, soccer and volleyball teams.

The Trustees received reports from the following standing committees: development, educational policy, University finance, medical finance, audit and the alumni board of governors.

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Washington University in St. Louis

School of Medicine Update

Landmark research to study development of area kids

The School of Medicine is collaborating with Saint Louis University, Southern Illinois University Edwardsville School of Nursing, Southern Illinois University School of Medicine and St. Louis Battelle Memorial Institute in what will be the largest study of child and human health ever conducted in the United States.

The National Institutes of Health has selected the city of St. Louis and Macoupin County, Ill., as sites for the National Children's Study, an extensive population-based study looking at the health and development of children by following them from before birth to adulthood.

The consortium is one of 22 new study centers added to the National Children's Study, which will follow a representative sample of 100,000 children from before birth to age 21. The study seeks information to prevent and treat some of the nation's most pressing health problems, including autism, birth defects, diabetes, heart disease and obesity. About 250 participants from the city of St. Louis and 250 participants from rural Macoupin County are expected to enroll for each of four years starting in 2009.

"The National Children's Study is an investment in the future," said Terry Leet, Ph.D., lead investigator of the St. Louis and Macoupin County study sites and chairman of the Department of Community Health at Saint Louis University School of Public Health. "Examining the kinds of questions that influence the health and well-being of children is critically important to the entire community, whether you are a parent, grandparent or researcher. What we find could be a potential gold mine of data for scientists who are studying what causes diseases in children."


DeBaun

Michael DeBaun, M.D., associate professor of pediatrics and biostatistics at Washington University, is co-principal investigator of the study.

"The National Children's Study is an important step in setting the foundation for understanding the environmental and genetic determinants of pediatric and adult diseases," DeBaun said. "We now have a unique opportunity coupled with a high level of responsibility to fulfill the mission of this important award for the next generation."

To spearhead the St. Louis-area study, Saint Louis University received a $26 million, five-year contract from the National Institute of Child Health and Human Development and a consortium of federal agencies including the National Institute of Environmental Health Sciences, the Centers for Disease Control and Prevention and the U.S. Environmental Protection Agency. The cost of the research is estimated at $3 billion over the next 25 years.

SIU School of Medicine in Springfield, Ill., will provide expertise and liaison to various health-care providers as SIU physicians offer both obstetrical and primary care services in central Illinois.

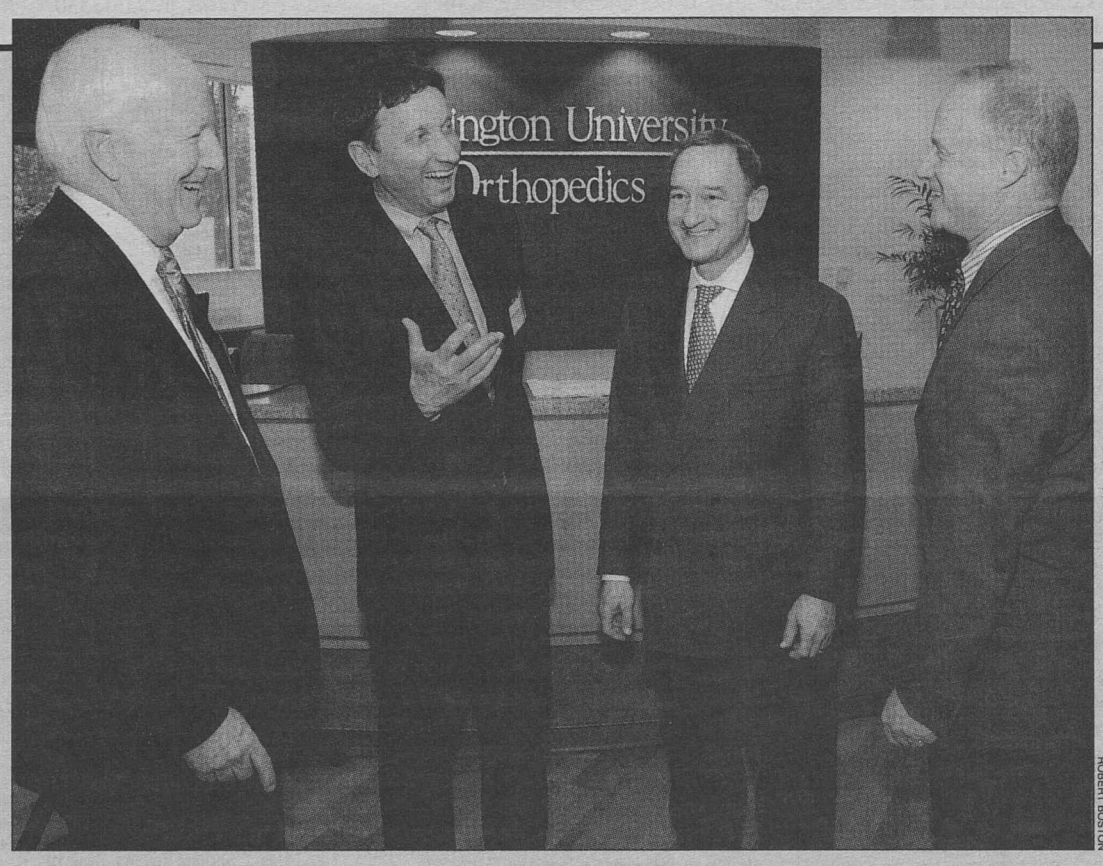
"This project offers the chance to put the St. Louis area and Macoupin County on the forefront of research into maternal and child health," Leet said. "It also fosters collaboration between the region's key research institutions."

Researchers will gather data from homes and health clinics on a child's genetic makeup and a number of biological, chemical, environmental, physical and psychosocial factors. Most of the money from the grant will be spent hiring data collectors for both sites.

The study begins either prior to conception or in the first trimester of pregnancy. The outcomes of pregnancies, such as preterm delivery, also will be evaluated.

Researchers will collect environmental samples from the air and water where children spend more than 30 hours a week to learn about potential exposures. They will analyze blood, urine, hair and fingernail samples from children. In addition, children will be screened for asthma, birth defects, diabetes, injury susceptibility, obesity and physical and mental development disorders.

From that repository of information, scientists can look at how certain factors alone or in combination with others affect pregnancy outcomes, child development and health and the likelihood an adult will develop certain diseases.



ROBERT BOSTON

Home sweet home (From left) Larry J. Shapiro, M.D., executive vice chancellor for medical affairs and dean of the School of Medicine, Richard H. Gelberman, M.D., the Fred C. Reynolds Professor and chair of the Department of Orthopaedic Surgery, Chancellor Mark S. Wrighton and Steven H. Lipstein, president and chief executive officer of BJC HealthCare, celebrate the Oct. 3 grand opening of the Washington University Orthopedics and Barnes-Jewish Hospital Outpatient Orthopedic Center in Chesterfield, Mo. The $13 million, 60,000-square-foot facility offers comprehensive, one-stop outpatient care, including physician offices, examination rooms, ambulatory surgery suites, diagnostic radiology and rehabilitation together with hand therapy services. The center relocates physician offices previously located at 1020 N. Mason Road.

Study of respiratory infections leads researchers to new virus

By Michael C. Purdy

Scientists making an ongoing effort to identify the microorganisms that make us sick have discovered a new virus potentially linked to unexplained respiratory infections.

Clinicians can typically use a patient's symptoms to determine that a virus is the likely culprit in a respiratory infection. However, even with advanced testing, they still can't blame a particular virus in roughly one-third of all such infections.

Scientists can't yet prove that the new virus, known as the WU virus, is making patients sick. But senior author David Wang, Ph.D., assistant professor of molecular microbiology, is suspicious enough that he's started follow-up studies.

"We've completed the first step required to link the WU virus to disease," Wang said. "First, you have to detect the potential pathogen in someone who's sick. Then you have to develop a way to grow the new microorganism in the laboratory. Finally, you have to show that you can make an animal model sick by exposing it to the microorganism."

These steps represent the scientific "gold standard" for linking a microorganism to disease, Wang said, but as technology has made it possible for scientists to identify viruses before culturing them, the steps haven't always been followed. For example, scientists have long accepted the hepatitis C virus as a cause of disease, but they only successfully grew it in the lab in the past year.

The research appeared in Public Library of Science Pathogens. It was supported in part by a grant from the Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Disease Research, a multi-institutional research center anchored at the University.

For the study, collaborators at The Royal Children's Hospital in Melbourne, Australia, provided samples from patients with respiratory infections. Despite an exhaustive battery of tests, Australian researchers had not been able to link the infections to any known pathogen.

Wang's lab used a technique called high throughput DNA sequencing to study patients' nasal secretions. The approach involves chopping up all genetic material from the secretions and rapidly and randomly reading the coding of that material.

In one patient, they found signs of a virus with limited similarity to polyoma viruses. The genetic material of the new virus is arranged in a similar fashion, and the virus's five proteins have similarities to the proteins of other polyoma viruses.

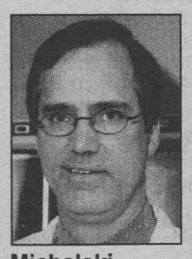
After identifying the WU virus in the lungs of an Australian patient, researchers found it in the respiratory tract secretions of another 43 patients in Australia and St. Louis, suggesting that the virus may be geographically widespread. There are early suggestions that the virus may be a secondary infection more likely to invade when hosts already are dealing with another infectious agent.

Polyoma viruses previously have been named after the initials of the patient in whom they were first discovered. Enhanced patient privacy measures such as the U.S. Health Insurance Portability and Accountability Act (HIPAA) no longer allow that, so the virus was named after the University.

New technologies add precision to prostate cancer treatments

By Gwen Ericson

An extra degree of precision will be added to radiation treatments for prostate cancer at the School of Medicine following the installation of two new technologies in the Department of Radiation Oncology.


Michalski

The move to adopt these technologies was led by Jeff Michalski, M.D., professor of radiation oncology and affiliated with the Siteman Cancer Center.

One of the technologies aids physicians during placement of radioactive seeds within the prostate, and the other aids in targeting external-beam radiation. Both technologies will increase radiation treatment accuracy to better eradicate tumors and avoid injury to nearby tissues.

For more than 15 years, radiation oncologists have been using ultrasound scans to measure the size and shape of the prostate while the patient is in the operating room to determine where to insert radioactive pellets or seeds for treatment of prostate cancer. This type of specialized treatment is called brachytherapy.

But until now, the ultrasound probe used to obtain the prostate images was not linked directly to the treatment-planning computer. That meant some of the changes in the prostate shape or position during treatment couldn't be taken into account, leading to less-than-optimal seed placement.

"Through a collaboration with two companies, Envisioneering Medical Products and Varian Medical Systems, we've integrated a unique ultrasound system with three-dimensional radiation planning," Michalski said. "It has a stationary probe with a mobile transducer inside it, and the probe communicates directly with the treatment-planning computer. That allows us to see in real time where the radioactive seeds are placed during the treatment to reduce the level of uncertainty."

A second advance allows real-time assessment and positioning correction during external-beam radiation therapy. Developed by Calypso Medical Technologies, this system employs beacons that transmit radio signals to a detector. A physician places the beacons into the prostate, and the beacons report the position of the prostate about 10 times per second as treatment progresses.

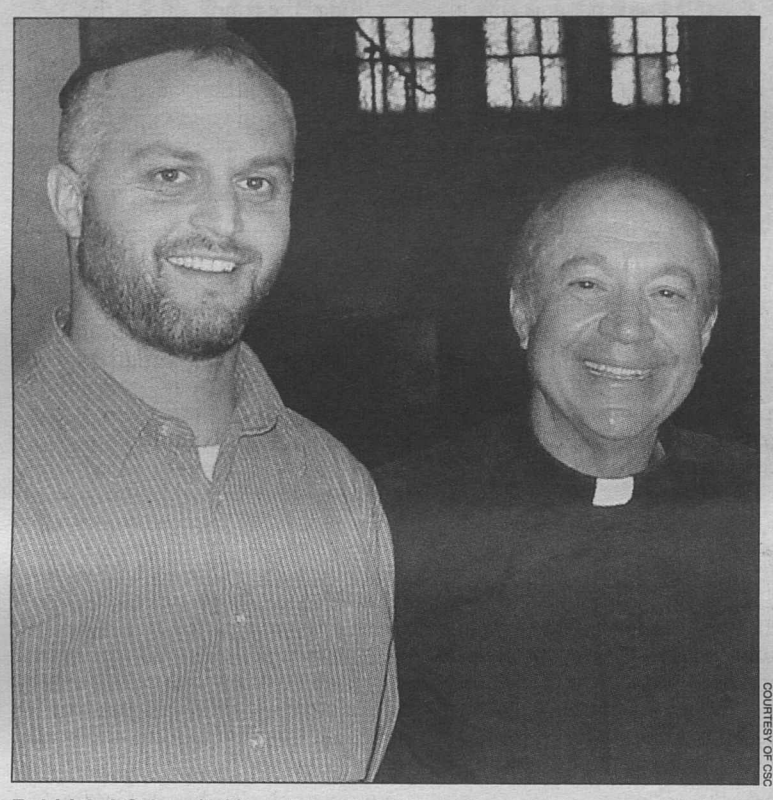
"Tests using this system showed that 15 percent of the time, the prostate moves about a fifth of an inch during treatment," Michalski said. "Small shifts like this can have a profound impact on radiation delivery because we're giving a high dose of radiation shaped tightly to the prostate. If the prostate shifts too much, it will no longer be hit by the highest radiation dose. This system allows us to know in the midst of treatment if any corrections need to be made."

The system for intraoperative brachytherapy treatment planning already is in use in the Department of Radiation Oncology and Siteman Cancer Center. The Calypso system was installed at the end of September and will soon be available.

"Both technologies are geared toward lessening the amount of surrounding tissue that receives high doses of radiation and toward maximizing the dose at the tumor site," Michalski said. "We will be making comparisons of past treatment outcomes to those obtained with the new systems to see how well they perform."

University Events

What do you believe? Assembly Series wants to know



COURTESY OF CSC

Rabbi Avi Orlow (left) and the Rev. Gary Braun will team up to lead an Assembly Series discussion on spirituality at the University at 4 p.m. Monday, Oct. 15, in Graham Chapel. Before the event, participants are encouraged to think about and bring to the discussion their own set of beliefs — religious, secular and anything in between.

'This I Believe: The State of Spiritual Life at Washington University'

BY BARBARA REA

At any given time, thousands of people from all walks of life converge at Washington University and form our campus community. Each brings his or her unique mix of cultural, familial, social, economic, educational and religious influences that form the basis of his or her belief system.

That belief system may or may not be spiritual in nature, and may be in a state of flux, especially for freshmen finding themselves in a secular academic environment for the first time.

To explore the state of spiritual life at the University, two campus ministers, Rabbi Avi Orlow of Hillel and the Rev. Gary Braun of the Catholic Student Center (CSC), will share their beliefs and guide an open discussion, "This I Believe: The State of Spiritual Life at Washington University," for the Assembly Series.

The event, free and open to the public, will be held at 4 p.m. Monday, Oct. 15, in Graham Chapel. Amy Heath-Carpentier, a career development specialist with the Career Center, will moderate.

Orlow and Braun encourage campus members to think about their own set of beliefs — religious, secular and anything in between — before the forum so there can be meaningful dialogue between the campus ministers and the students.

The forum itself will leave time for audience participation. In addition, Orlow and Braun will contribute to a Student Life op-ed article for the Oct. 12 issue and encourage others to contribute their submissions, either through Student Life or at the forum.

"We invite all thoughts and beliefs to be heard," Orlow said. "A belief system can be completely devoid of religious or spiritual characteristics or deeply religious in nature. We want to create an honest dialogue."

After Orlow and Braun deliver their comments, Heath-Carpentier will invite comments and questions from the audience.

Orlow is the Rabbi of St. Louis Hillel, an organization that seeks to maximize opportunities for Jewish students to explore, celebrate and sanctify life in a Jewish way.

Located in the Alvin & Jeanette Goldfarb Hillel Center, 6300 Forsyth Blvd., Hillel serves students from all area colleges and universities.

Braun has directed the CSC, also called the Newman Center, since 1991. CSC, located at 6352 Forsyth Blvd., serves as a community not only for Catholic formation but also as a welcoming community for students of all faiths.

As a career development specialist, Heath-Carpentier is influenced by her diverse professional background, including academic advising, software development and teaching religious studies, women's studies and history at the undergraduate and graduate levels.

For more information on this or future Assembly Series programs, visit assemblyseries.wustl.edu, or call 935-4620.

Tales from Old Japan • Ultrasound Imaging • Cuba Today

"University Events" lists a portion of the activities taking place Oct. 11-25 at Washington University. Visit the Web for expanded calendars for the Danforth Campus (webevent.wustl.edu) *and the School of Medicine* (medschool.wustl.edu/calendars.html).

How to submit 'University Events'

Submit "University Events" items to Angela Hall of the Record staff via:

e-mail — recordcalendar@wustl.edu

campus mail — Campus Box 1070

fax — 935-4259

Upon request, forms for submitting events will be e-mailed, mailed or faxed to departments to be filled out and returned.

Deadline for submissions is noon the Thursday prior to publication date.

Exhibits

"Horse Series." Abstract images of Clydesdale horses by Robert Boston, School of Medicine photographer. Through fall. Farrell Learning and Teaching Center, 520 S. Euclid Ave., Lvl. 2.

Lectures

Thursday, Oct. 11

Noon. Genetics Seminar. "The Cancer Epigenome: Its Origins and Implications for Tumor Progression." Stephen B. Baylin, prof. of oncology, Johns Hopkins U. School of Medicine. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

4 p.m. Chemistry Seminar. "Functional Dendrimers and Organic-Inorganic Hybrids." Zhonghua Peng, prof. of chemistry, U. of Mo.-Kansas City. McMillen Lab., Rm. 311. 935-6530.

4 p.m. Ophthalmology & Visual Sciences Seminar Series. "Developmental Genomics and Ocular Melanoma." J. William Harbour, prof. of ophthalmology. Maternity Bldg., Rm. 725. 362-3315.

8 p.m. Romance Languages & Literatures Lecture. Annual Rolando Lara Memorial Lecture. "Imagining the Early Modern Child." Eva Kushner, prof. emeritus of comparative literature, U. of Toronto. (Reception follows.) McMillan Cafe. 935-5175.

Friday, Oct. 12

8 a.m.-3 p.m. St. Louis STD/HIV Prevention Training Center Course. "Ask, Screen, Intervene." Cost: $50. For location and to register: 747-1522.

11 a.m. Energy, Environmental & Chemical Engineering Seminar Series. Dr. Punit Jain, Cannon Design, Green Building Council. Lopata Hall, Rm. 101. 935-5548.

3 p.m. Cell Biology & Physiology Seminar. "Human Genetic Diseases: Insights Into Elastic Fiber Formation and Vascular Development." Zsolt Urban, asst. prof. of pediatrics. McDonnell Medical Sciences Bldg., Rm. 426. 362-6630.

4 p.m. Dept. of Music Graduate Symposium. "Rudolph Ganz and Musical Modernism in St. Louis, 1917-1927." Emily Granneman, graduate teaching asst. "Une Culture Classique Supérieure: Saint-Saëns's Staging of an Antique Aesthetic." Erin Brooks, graduate teaching asst. Music Classroom Bldg., Rm. 102. 935-4841.

5 p.m. Ophthalmology & Visual Sciences Fall Update 2007. (Continues Oct. 13.) Kirk Packo, prof. & chair of ophthalmology, Rush U. Medical Center; Alan Sugar, prof. & assoc. chair of ophthalmology, Kellogg Eye Center and Neil Miller, prof. of ophthalmology, neurology & neurosurgery, Johns Hopkins School of Medicine. Eric P. Newman Education Center. 362-5722.

Saturday, Oct. 13

7:30 a.m.-12:30 p.m. Cardiovascular Disease CME Course. "Management of Atrial Fibrillation." Cost: $85. Eric P. Newman Education Center. To register: 362-6891.

7:30 a.m.-3:30 p.m. Oncology CME Course. "Advances in Cancer Diagnosis and Treatment." Cost: $145 for physicians, $100 for allied health professionals. The Chase Park Plaza, 212-232 N. Kingshighway Blvd. To register: 362-6891.

10 a.m. Physics Science Saturdays Lecture Series. "How Does the Brain Work? Our Journey to Gain Insight Into the Functioning of the Brain." Ralf Wessel, prof. of physics. Crow Hall, Rm. 201. 935-6276.

Monday, Oct. 15

8:30 a.m.-4 p.m. Center for the Application of Information Technology Workshop. "Developing IT Professionals Into Leaders." (Continues 8:30 a.m.-4 p.m. Oct. 16.) Cost: $1,210, reduced fees available for CAIT member organizations. CAIT, 5 N. Jackson Ave. 935-4444.

11 a.m. Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research Guest Lecture. "Anthrax, Plague and Tularemia: Recently Emerged Pathogens Tracked Globally Using Genomic Analysis." Paul S. Keim, dir. of pathogen genomics, Northern Ariz. U. Farrell Learning & Teaching Center, Holden Case Study Rm. 286-0432.

1 p.m. Master of Psychiatric Epidemiology Program Seminar. "Ecological Momentary Assessment: Epidemiology on a PDA." Barry Hoffer, dir. of intramural research program, National Institutes of Health. Farrell Learning & Teaching Center, Rm. 213 A&B. 286-2261.

4 p.m. Assembly Series. "This I Believe: The State of Spiritual Life at Washington University." Gary Braun, dir. of campus ministries, and Avi Orlow, campus ministries. Graham Chapel. 935-5285.

4 p.m. Immunology Research Seminar Series. "Darwin's Nose — How to Cure a Persistent Viral Infection: Role for IL-10." Michael B. A. Oldstone, prof., The Scripps Research Institute. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

4 p.m. Physics Colloquium. "Colloids as a Model System to Explore Complex Matter." Charles Reichhardt, theoretical division, Los Alamos National Laboratory. (3:30 p.m. coffee, Compton Hall, Rm. 245.) Crow Hall, Rm. 204. 935-6276.

4 p.m. Psychology Colloquium. "The Terminator and the Spectator: Does Media Violence Cause Societal Violence?" Brad J. Bushman, prof. of psychology, U. of Mich. McDonnell Hall, Rm. 162. 935-6592.

4 p.m. Siteman Cancer Center Seminar. "Phosphoproteomic Analysis of Her2/neu Signaling and Inhibition." Ron Bose, asst. prof. Center for Advanced Medicine, 4921 Parkview Place. 454-8981.

5:30 p.m. Cardiac Bioelectricity & Arrhythmia Center Seminar. "SUMO Emerges From the Nucleus to Regulate Membrane Excitability." Steve A. Goldstein, prof. of pediatrics, U. of Chicago. (5 p.m. reception.) Whitaker Hall, Rm. 218. 935-7887.

Tuesday, Oct. 16

11 a.m. Energy, Environmental & Chemical Engineering Seminar Series. "Microbubble Contrast Agents for Ultrasound Imaging and Drug Delivery." Kausik Sarkar, prof. of mechanical engineering, U. of Del. Lopata Hall, Rm. 101. 935-5548.

Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series. "Sugar Shock: A Metabolic Sensor Controlling Cell Size." Petra Levin, asst. prof. of biology. Cori Aud., 4565 McKinley Ave. 747-1029.

7 p.m. School of Medicine CME Course. Mini-Medical School I. Cost: $125. (Continues weekly through Nov. 13.) Eric P. Newman Education Center. To register: 362-6585.

Wednesday, Oct. 17

Noon. Mallinckrodt Inst. of Radiology Lecture. Annual Wendell G. Scott Memorial Lecture. "New Horizons for Imaging in the Diagnosis and Treatment of Alzheimer's Disease." Mark A. Mintun, prof. of radiology, psychiatry and bioengineering. Scarpellino Aud., 510 S. Kingshighway Blvd. 362-2866.

4 p.m. Physics Colloquium. "The Oklo Natural Nuclear Reactor and the Time Stability of the Fundamental Constants of Nature." Steve Lamoreaux, prof. of physics, Yale U. (3:30 p.m. coffee, Compton Hall, Rm. 245.) Crow Hall, Rm. 204. 935-6276.

Thursday, Oct. 18

10:30 a.m. Economics Lecture. Edwards C. Prescott, prof. of economics, Arizona State U. (Continues 3:30 p.m. Oct. 19.) Eliot Hall, Rm. 200F. 935-5443.

Noon. Genetics Seminar. "Notes from the Underground: Specification of Heme Trafficking Pathways in *C. elegans*." Iqbal Hamza, asst. prof. of animal & avian sciences, U. of Md. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

3 p.m. Physics Theory Seminar. "Interacting Dark Energy and the Expansion History of the Universe." Michael Berger, assoc. prof. of physics, U. of Ind. (2:30 p.m. coffee, Compton Hall, Rm. 245.) Crow Hall, Rm. 204. 935-6276.

4 p.m. Chemistry Seminar. "Nucleophilic Catalysis and the Quaternary Carbon Problem." Edwin Vedejs, prof. of chemistry, U. of Mich. McMillen Lab., Rm. 311. 935-6530.

4:15 p.m. Earth & Planetary Sciences Colloquium. "Lateral Heterogeneity in Earth's Inner Core." Keith Koper, assoc. prof. of geophysics, Saint Louis U. Earth & Planetary Sciences Bldg., Rm. 203. 935-5610.

Friday, Oct. 19

11 a.m. Energy, Environmental & Chemical Engineering Seminar Series. "Powering Today's Air Force." Donald Erbschole, chief scientist, U.S. Air Force. Lopata Hall, Rm. 101. 935-5548.

Noon. Cell Biology & Physiology Seminar. "Drosophila Model of Diabetes and Glucose Toxicity." Thomas J. Baranski, assoc. prof. of medicine. McDonnell Medical Sciences Bldg., Rm. 426. 362-6630.

Noon. East Asian Studies Conference. Midwest Conference on Asia Affairs. (Continues 8:30 a.m. Oct. 20; 9 a.m. Oct. 21.) Cost: $70. Eads Hall. 935-4448.

6 p.m. Diversity Programs Lecture. Annual Homer G. Phillips Public Health Lecture Series. Deborah Prothrow-Stith, assoc. dean & prof. of public health practice, Harvard School of Public Health. Eric P. Newman Education Center. To register: 362-6854.

Saturday, Oct. 20

10 a.m. Physics Science Saturdays Lecture Series. "The Laws of Classical Physics Govern What Cardiologists See and Hear." Sandor Kovacs, prof. of physics & medicine. Crow Hall, Rm. 201. 935-6276.

Monday, Oct. 22

Noon. Work, Families and Public Policy Brown Bag Seminar Series. "Preferences: Experimental and Survey Evidence." Duncan Thomas, prof. of economics, Duke U. Eliot Hall, Rm. 300. 935-4918.

1 p.m. Epidemiology Program Seminar. "Secular Trends in U.S. Alcohol Dependence: Who? How Much? And Why?" Rick Grucza, research asst. prof. of psychiatry. Farrell Learning & Teaching Center, Rm. 213 A&B. 286-2261.

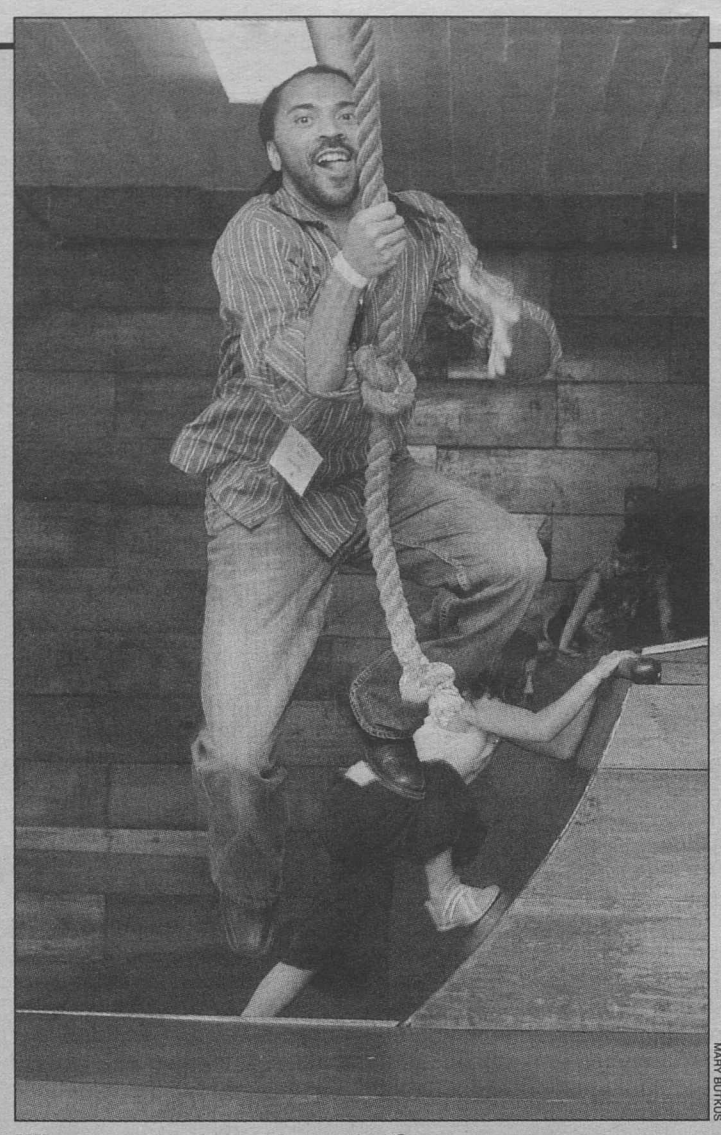
3 p.m. Neuro-Oncology Research Group Seminar Series. "Increasing Diagnostic Specificity in Brain Tumors with MR Spectoscopy, Diffusion and Perfusion MR Imaging." Meng Law, assoc. prof. of radiology, Mount Sinai School of Medicine. South Bldg., Rm. 3907, Philip Needleman Library. 362-0183

4 p.m. Foreign Language Learning Colloquium Speaker Series. "Computing the Vocabulary Demands of L2 Reading." Tom Cobb, prof. of applied linguistics, U. of Quebec in Montreal. Lab Sciences Bldg., Rm. 300. 454-8981.

4 p.m. Immunology Research Seminar Series. "Genomic Based Discovery of Novel Respiratory and Enteric Viruses." David Wang, asst. prof. of molecular biology. Farrell Learning & Teaching Center, Connor Aud. 362-2763.

4 p.m. Physics Seminar. "Balancing at the Edge of Stability." John Milton, prof. of Computational Neuroscience, The Claremont Colleges. (3:45 p.m. coffee, Compton Hall, Rm. 245.) Crow Hall, Rm. 204. 935-6276.

5:30 p.m. Cardiac Bioelectricity & Arrhythmia Center Seminar. "What can Echocardiography-Based Tissue



MARY BUTKUS

Who says business is no fun? Darrell Butler, MBA '92, gets into the swing of things at the City Museum Saturday, Oct. 7, at the annual Olin Business School reunion. In addition to the opportunity to reconnect with classmates, this year's reunion had several additions. Olin offered an educational component called "Advancing Olin Alumni," sessions taught by Olin's top professors covering cutting-edge topics in business. The weekend also had plenty of fun events, too. In addition to the City Museum party, alumni could tour the new Busch Stadium, go to a disco or participate in a golf outing.

Husband-and-wife team to lead master class in Indian dance Oct. 14

Husband-and-wife performers Sanjay Shantaram and Shama Sanjay will teach an introductory master class in the Bharata Natyam style of dance at 3 p.m. Sunday, Oct. 14, in the Annelise Mertz Dance Studio in the Mallinckrodt Student Center.

Shantaram and Sanjay are in St. Louis as guest artists for Dances of India's 30th anniversary concert, "A Magical Gala of Indian Dance," which takes place at Edison Theatre Oct. 19-21.

Shantaram began dancing at age 7 and soon became a well-known child actor, appearing in more than 50 Kannada and Telugu films as well as on several popular Kannada television serials. Sanjay, who began dancing at age 8, also is a well-known face on the small screen, appearing in numerous television serials since 1994.

Shantaram and Sanjay have been featured at prestigious dance festivals throughout India and have toured the United States, the United Kingdom, Oman, Switzerland and the Andaman Islands.

Shantaram's many honors include a Gold Medal at an all-India dance competition in Hyderabad, while Sanjay has received a national-level scholarship from India's Ministry of Tourism & Culture as well as the Aryabhata Award for Upcoming Dancers from the Aryabhata Cultural Association in Bangalore.

Today the couple directs the Shivapriya School of Dance in Bangalore, India. For more information, visit shivapriya.com.

Cost for the class is $10 for the public and free for members of the Missouri Dance Organization as well as for WUSTL students, faculty and staff. For more information or to register, call 935-5858.

Dances of India is led by Asha Prem, adjunct instructor in dance in the Performing Arts Department of Arts & Sciences. For tickets or more information about the concert, call the Edison Theatre Box Office at 935-6543.

An evening of song with Jennifer Jakob

Soprano Jennifer Jakob will perform an intimate "Liederabend" for the Department of Music in Arts & Sciences at 3 p.m. Sunday, Oct. 14, in Graham Chapel.

Literally translated as an "evening of song," Liederabend is a German term referring to a recital given by a singer and pianist, particularly of works by 19th-century Austrian or German composers.

The program will open with nine songs from Hugo Wolf's "Italienisches Liederbuch" (1892-96) followed by three songs by Johannes Brahms. The program will then continue with four "Mignon songs" — based on the character from Johann Wolfgang von Goethe's novel "Wilhelm Meister's Apprenticeship" (1795) — which include compositions by Wolf, Franz Schubert and Robert Schumann. Concluding the program are four songs by Richard Strauss.

Jakob, a native of Kempten, Germany, earned her bachelor's degree from Oberlin College, where she won the Senior Concerto Competition and was chosen to participate in the Danenberg Honors Recital performing a set of Strauss Lieder. She currently is working toward a master's degree at Indiana University and in February will sing the role of Rita Billingsley in the collegiate premiere of William Bolcom's "A Wedding" (2004).

In 2005, Jakob debuted in Italy as Clarina in Gioachino Rossini's "La Cambiale di Matrimonio" (1810) and was chosen to sing for the famous Italian soprano Mirella Freni. For the past two summers, she has been a Gerdine Young Artist for Opera Theatre of St. Louis, covering the role of Rose Maurrant in Kurt Weill's "Street Scene" (1947) and the title role in David Carlson's "Anna Karenina" (2007).

Last April, Jakob won a prestigious Sara Tucker Study Grant, awarded annually by the Richard Tucker Music Foundation in New York.

The concert is free and open to the public. For more information, call 935-5566.

Theorist Eric Santner to give lecture

Theorist Eric Santner, visiting Hurst professor in the Department of English in Arts & Sciences, will speak on "The People's Two Bodies: Modernity and the Endgames of Sovereignty" at 8 p.m. Thursday, Oct. 11.

Santner, the Philip and Ida Romberg Professor in Modern Germanic Studies and chair of the Department of Germanic Studies at the University of Chicago, works at the intersection of literature, philosophy, psychoanalysis and religious thought. He is a leading theorist on the ethics of cultural practice within the contexts of contemporary forms of authority.

Santner's 2001 book, "On The Psychology of Everyday Life: Reflections on Freud and Rosenzweig," received honorable mentions from the Koret Jewish Book Prize in Philosophy and Religious Thought, the James Russell Lowell Prize of the Modern Language Association and the Rene Wellek Prize of the American Comparative Literature Association. He has written numerous other books, most recently "On Creaturely Life: Rilke, Benjamin, Sebald" (2006), and also is the author, with Slavoj Zizek and Kenneth Reinhard, of "The Neighbor: Three Inquiries in Political Theory" (2005), a major reconsideration of the ethics of Lacan and Levinas.

The lecture, sponsored by the Department of English in Arts & Sciences, is free and open to the public and takes place in Duncker Hall, Room 201, Hurst Lounge. For more information, call 935-5190.

Characterization Tell Us About the Heart?" James G. Miller, prof. of physics, medicine & biomedical engineering. (5 p.m. reception.) Whitaker Hall, Rm. 218. 935-7887.

Tuesday, Oct. 23

Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series. "The Rotavirus Enterotoxin: Roles in Virus Pathogenesis and Replication." Mary Estes, prof. of molecular virology & microbiology, Baylor College of Medicine. Cori Aud., 4565 McKinley Ave. 286-1123.

Noon. Program in Physical Research Seminar. "The Ubiquitin-Proteasome System in Normal and Diseased Skeletal Muscle." Conrad C. Wiehl, asst. prof. of neurology. 4444 Forest Park Blvd., Lower Lvl., Rm. B108. 286-1404.

4 p.m. Chemistry Seminar. "Reaction Chemistry Meets Lithography." Colin Nuckolls, assoc. prof. of chemistry, Columbia U. McMillen Lab., Rm. 311. 935-6530.

Wednesday, Oct. 24

4 p.m. Biochemistry & Molecular Biophysics Seminar. "Biophysical Characterization of Functional Enzyme Motions." Patrick Loria, asst. prof. of chemistry, Yale U. Cori Aud., 4565 McKinley Ave. 362-4152.

4 p.m. Global & Transnational Feminisms Lecture Series. "The Disappearing of Hannah Kudjoe: Women, Nation and the Tyranny of History." Jean Allman, prof. of history. Women's Building Formal Lounge. 935-5102.

Thursday, Oct. 25

Noon. Genetics Seminar. "Genomic Imprinting and Genetic Maternal Effects on Growth and Adult Body Composition in Mice." James M. Cheverud, prof. of anatomy. McDonnell Medical Sciences Bldg., Rm. 823. 362-2139.

4 p.m. Assembly Series. "An Afternoon With Kal Penn." Kal Penn, actor. Graham Chapel. 935-5285.

4 p.m. History Colloquium. "Why Were the Templars Arrested in 1307?" Malcolm Barber, prof. of medieval European history, U. of Reading, United Kingdom. (Reception follows.) Duncker Hall, Rm. 201, Hurst Lounge. 935-5450.

4 p.m. Ophthalmology & Visual Sciences Seminar Series. "For Whom the Bells Toll: A Network of Circadian Clocks in the Mammalian Brain." Erik D. Herzog, assoc. prof. of biology. Maternity Bldg., Rm. 725. 362-3315.

4 p.m. Romance Languages & Literatures Lecture. "Loma y Machete: The Symbolism of Race in Cuba Today." Pedro Perez-Sarduy, assoc. fellow, Caribbean Studies Centre, London. Lab Sciences Bldg., Rm. 300. 935-5175.

7 p.m. School of Medicine CME Course. Mini-Medical School III. Cost: $125. (Continues weekly through Nov. 15.) Eric P. Newman Education Center. To register: 362-6585.

8 p.m. The Writing Program Fall Reading Series. Susan Wheeler, author, will read from her poetry. Duncker Hall, Room 201, Hurst Lounge. 935-7130.

Music

Thursday, Oct. 11

8 p.m. Jazz at Holmes. Vince Varvel, guitar. Ridgley Hall, Holmes Lounge. 935-4841.

Thursday, Oct. 25

8 p.m. Jazz at Holmes. Reggie Thomas, piano. Ridgley Hall, Holmes Lounge. 935-4841.

On Stage

Friday, Oct. 12

8 p.m. Performing Arts Dept. Presentation. "1940s Radio Hour." (Also 8 p.m. Oct. 13; 2 p.m. Oct. 14.) Edison Theatre. 935-6543.

Friday, Oct. 19

8 p.m. East Asian Studies performance. "Treasured Tales from Old Japan." J.C. Penny Aud., U. of Mo.-St. Louis. 935-4448.

Sports

Saturday, Oct. 13

Noon. Football vs. U. of Chicago. Francis Field. 935-4705.

Friday, Oct. 19

7 p.m. Men's Soccer vs. Birmingham Southern College. Francis Field. 935-4705.

Sunday, Oct. 21

1 p.m. Men's Soccer vs. St. Norbert College. Francis Field. 935-4705.

Monday, Oct. 22

5 p.m. Women's Soccer vs. Wheaton College. Francis Field. 935-4705.

Sports

Men's basketball ranked No. 1

Fresh off its first appearance in the NCAA Final Four, the Washington University men's basketball team has earned a No. 1 ranking in the 2007-08 Sporting News Division III preseason poll. The Bears return four starters from last year's 25-5 team, including first-team all-America selection Troy Ruths and first-team all-University Athletic Association honoree Sean Wallis.

Volleyball wins Augustana Invitational

The No. 8 volleyball team swept four matches at the Augustana Invitational Oct. 5-6 in Rock Island, Ill., winning the tournament title.

The Bears finished 3-0 in tournament pool play, defeating Grinnell College and Knox College Oct. 5 and Elmhurst College Oct. 6. The team's undefeated record led to a berth in the tournament title game, which it won with a sweep of North Central College. Senior Haleigh Spencer finished the weekend with 38 kills and 50 digs, while junior Alli Alberts compiled 41 kills and 35 digs. Both were named to the all-tournament team and hit .310 for the tournament.

Football improves record to 5-1

The defense forced five turnovers en route to a 33-10 victory against LaGrange College Oct. 6 at Francis Field. The Bears improve to 5-1 with the win, compiling their best start since they began the 1995 season 6-1.

Sophomore Tim Machan recorded his team-leading sixth interception of the season in the win and had an 81-yard fumble return for a touchdown. Junior quarterback Buck Smith completed 15 of 21 passes for 107 yards passing and one touchdown, improving to 5-1 in his first year as the starting quarterback.

Men's tennis earns top seeds in ITA tourney

The men's tennis team has been awarded the top seed in both singles and doubles at the Wilson/Intercollegiate Tennis Association (ITA) National Small College Championships, which begin Thursday, Oct. 11, in Mobile, Ala. Sophomore John Watts is the top seed in singles. The doubles team of juniors Charlie Cutler and Chris Hoeland was awarded the top seed in pool play.

The winners of the Division III singles and doubles championship will compete in the Super Bowl Sunday, Oct. 14, and Monday, Oct. 15, which will consist of the winners from Division II, Division III, NAIA and Junior College.

Women's soccer suffers first loss

The No. 4 women's soccer team had its 24-game regular season and eight-game University Athletic Association winning streak snapped in a 3-2 double overtime loss at No. 8 Emory University in a battle of two undefeated top 10 teams Oct. 7.

Senior goalkeeper Carrie Sear made a career-high eight saves in the loss, suffering her first defeat of the season (10-1). The Bears entered the match having allowed just three goals in their first 10 games and had posted shutouts in the past three games.

Roever Lectures to explain famous mathematical problem

Sometimes a sphere is just a sphere

BY TONY FITZPATRICK

One of the most famous problems in mathematics will be discussed at this year's William H. Roever Lectures in Geometry, a two-day event hosted by the Department of Mathematics in Arts & Sciences in memory of its longtime chair.

The lectures, a series of four talks, will be held Oct. 19-20 in Lopata Hall on the Danforth Campus and are free and open to the public.

The topic: The solution of the famous Poincaré Conjecture. John Morgan, Ph.D., professor of mathematics at Columbia University, and Gang Tian, Ph.D., professor of mathematics at Princeton University, will give these lectures based on their recently published book, "Ricci Flow and the Poincaré Conjecture."

The book gives a detailed exposition of the solution posted as manuscripts on the Web server arXiv in 2002 and 2003 by the Russian mathematician Grigory Perelman.

The conjecture, named after French mathematician Henri Poincaré (1854-1912), states that a three-dimensional manifold with the homotopy of the sphere is the sphere. Or, stated differently: In three dimensions, any space that has the geometry of a sphere actually is a sphere.

Poincaré posed the question in 1904, but it only has been in the past four years that an offered solution has survived the scrutiny of the experts.

"It will be quite a special event and the chance of a lifetime to have two of the world's experts on the subject do their best to explain it to us in four hours or so," said Gary R. Jensen, Ph.D., professor of mathematics and host of the Roever Lectures.

The lectures open with a tea Oct. 19 at 12:45 p.m. in Cupples I Hall. The program then moves to Lopata Hall, where Morgan delivers the first lecture, "The Poincaré Conjecture and the Geometrization Conjecture" at 1:30 p.m. Tian gives the second lecture, "Singularity Development in Finite Time" beginning at 4 p.m.

On Oct. 20, Morgan starts off with "Ricci Flow With Surgery" at 9 a.m. followed by Tian's lecture "Completion of the Proofs" at 11 a.m.

The William H. Roever Lectures in Geometry were established in 1982 by his sons William A. and Frederick H. Roever and members of their families. It is a lasting memorial to their father and is a continuing source of strength for the mathematics department, which owes so much to his long career.

After earning a bachelor's in mechanical engineering from the University in 1897, Roever studied mathematics at Harvard University, where he earned a doctorate in 1906.

After two years teaching at the Massachusetts Institute of Technology, he returned to the University in 1908. He spent his entire career here, serving as chairman of the Department of Mathematics and Astronomy from 1932 until his retirement in 1945.

Roever published over 40 articles and several books, nearly all in his specialty, descriptive geometry.

He served on the council of the American Mathematical Society and on the editorial board of the Mathematical Association of America and was a member of the Mathematical Societies of Italy and Germany.

Symposium showcases undergraduate research

BY NEIL SCHOENHERR

Is theatre an effective tool for social change? What were the effects of sexual violence on African-American women after the Civil War? What is the history of organic food in America?

The answers to these questions and many more will be explored during the fall 2007 Undergraduate Research Symposium from 8:30 a.m.-4 p.m. Saturday, Oct. 13, in the Arts & Sciences Laboratory Sciences Building Rettner Gallery.

Slated to be the largest in the event's three-year history, the symposium will feature a new partnership with the University's Howard Hughes Medical Institute scholars and the Career Center.

More than 110 undergraduate students are expected to showcase their research projects through poster presentations and visual and oral presentations during the event, which is free and open to the public.

"Undergraduate research is not just a means to get into graduate school anymore," said Henry Biggs, Ph.D., associate dean in Arts & Sciences and director of the Office of Undergraduate Research. "It's a remarkable tool for going into business or any number of other fields. The research projects that undergraduates have completed in the past have proved instrumental in launching those students down great paths. Employers know the rigor involved in completing a full-blown research project, and it can make a student very attractive to a future employer."

Several local high schools have been invited to attend the symposium, which will feature research from each of the schools on the Danforth Campus.

This year, for the first time, 61 Howard Hughes Medical Institute scholars, who completed summer research in the life sciences, will present at the symposium. Institute participants had held a separate research showing in the past.

More than 20 students who completed summer internships through the Career Center also will present their work.

Students are excited to be able to showcase their research not only to their academic peers but also to the entire University community.

Junior Daniel Silver, majoring in economics in Arts & Sciences, will be presenting "Inconsistent Religious Responses to Economic Change."

"By participating in the Undergraduate Research Symposium, I am able to take part in an academic dialogue regarding my research," Silver said. "It provides the opportunity to expand upon my own understanding of the topic and also to share that understanding with the public."

Junior Lauren Bernstein, a history major in Arts & Sciences, will present her research project "Extralegal Enslavement: Sexualized Violence Across the Color Line, 1880-1920."

While lynching is traditionally viewed as a crime between men, Bernstein found that shifting the focus to the study of women reveals the complicated interplay of ideas about gender, race and sex in the post-Reconstruction United States.

"The symposium will give me the opportunity to share my original work and to have the experience of explaining its relevance to a wide audience," Bernstein said.

"I want other undergraduates to know that research doesn't only occur in labs, and that if you are interested in investigating something about which you are passionate, you can make that happen with University support," he said. The symposium has come a long way in a short time, starting with just 15 participants in spring 2005.

"I think we are not too far from having a true research day on the Danforth Campus devoted entirely to undergraduate research," Biggs said. "It's just amazing to see the things that students are doing here. We're excited to showcase it in a venue where everyone can see our students' great accomplishments."

For more information, visit ur.wustl.edu.

Cholesterol

Late-onset origins harder to pin down

– from Page 1

tween early- and late-onset Alzheimer's. Both forms of the disease result in similar brain lesions and have the same symptoms — difficulties communicating, learning, thinking and reasoning — suggesting they share underlying mechanisms. But until now, no one has been able to identify such a mechanism.

Early-onset Alzheimer's can be traced to mutations in one of three genes, and the gene coding for A-beta's precursor, APP, is one of these. People with mutations in APP nearly always develop Alzheimer's, usually at a relatively young age.

The genetic origins of late-onset Alzheimer's, which accounts for 95 percent of cases, have proven harder to pin down. However, studies have shown that people who have a particular mutation in the gene for a cholesterol carrier called apolipoprotein E are far more likely to develop Alzheimer's in old age than those who don't have the mutation.

Bu and colleagues demonstrated that APP and apolipoprotein E have a molecular connection. When APP is cleaved by a specific enzyme in the brain, it releases A-beta plus a small protein fragment. The fragment then can regulate apolipoprotein E, which moves cholesterol in the brain from support cells to neurons.

Past research by others implies that neural synapses — the junctions that nerves use to send impulses and communicate — are particularly sensitive to cholesterol levels and that interfering with cholesterol transport and metabolism could cause loss of synapses and degeneration of nerves.

"Cholesterol metabolism in the brain is an understudied area, and our findings could inspire Alzheimer's researchers to look further into the role of the cholesterol pathway."

GUOJUN BU

"Cholesterol metabolism in the brain is an understudied area, and our findings could inspire Alzheimer's researchers to look further into the role of the cholesterol pathway," Bu said. "Right now, research on Alzheimer's treatment focuses largely on reducing A-beta production or increasing its clearance from the brain. Our study suggests that there could be an alternate way to treat the disease, perhaps by modulating the function of apolipoprotein E and cholesterol in the brain."

Bu and his colleagues plan to screen for compounds that regulate the molecular components that they found to be involved in cholesterol metabolism. They hypothesize that such compounds could work to enhance the brain's cholesterol metabolism and alleviate Alzheimer's symptoms.

Fire

Assembly points for every campus building

– from Page 1

campus fire safety; 20 occurred in the 2006-07 academic year. The more educated and aware students, faculty and staff are of how to prevent fires and handle emergency situations, the better, Bagby said.

During National Fire Prevention Week, the Environmental Health and Safety Department is focusing on educating the University community about exit routes and emergency assembly points.

Bagby and his staff are working with area fire departments, the Washington University Police Department and others to establish emergency assembly points for every building on campus.

The project will be completed by the end of the month, and emergency assembly points for all campus buildings will be listed at ehs.wustl.edu.

Of the 113 fatalities since 2000, 81 percent occurred in off-campus housing, which is why it is important for those living off-campus to plan for an emergency.

Bagby recommended establishing a place away from your home — on a sidewalk, at the neighbor's house — where housemates or family can congregate.

Bagby also advised each department to designate a fire coordinator to teach employees correct evacuation routes and assembly points and, in an emergency situation, to perform a head count after evacuating to make sure everyone on staff is accounted for. In residence halls, this duty is performed by RAs and RCDs.

When evacuating, briefly pause to close doors behind you. That simple act can help slow or stop the spread of smoke and fire, Bagby said.

The Environmental Health and Safety Department works throughout the year to ensure the campus is prepared for emergency situations. Workers perform annual and monthly fire safety checks of all campus buildings to make sure emergency equipment such as sprinkler heads, horns and strobes are functioning correctly.

They also check that no furniture or equipment is blocking fire escape routes and no mounds of paper clutter — a fire hazard — are accumulating in rooms or hallways.

The department also organizes fire drills of all dorms and fraternity buildings. In the past, fire drills were annual, but students, be warned: Starting in January, they will come once a semester because of a change in the fire code.

Don't be too upset about having your morning, afternoon or evening interrupted — remember, the University is looking out for your safety.

Six fire safety tips

1. Don't tamper with your smoke detectors. "Students sometimes want to smoke in their rooms or use candles and incense, so they will put a baggie or tape over the smoke alarm, or find a way to disable it that doesn't show in our computers that it's not working," said Mark Bagby, University disaster coordinator.

2. Replace batteries. Most off-campus housing and faculty/staff homes use battery-powered smoke detectors. To make sure the detectors are ready in case of an emergency, residents should test smoke detectors monthly and replace the batteries every six months — when clocks are changed for daylight savings time.

3. Don't light candles or cigarettes or burn incense in your room or office. It's not allowed in classrooms, offices or in University housing managed by Residential and Greek Life.

4. Don't overload your electric socket. Students bring big-screen TVs, toaster ovens, stereos, hotplates and other electronic equipment to school — often more gadgets than there are sockets in their dorms or apartments. Many people use power strips and overload their rated capacity, which can lead to problems. "The circuits aren't designed for such loads," Bagby said, "and overloading the system can lead to electrical fires."

5. Clean up after yourself. If combustibles (paper towels, clothes or cardboard) pile up, a spark from a cigarette or an overloaded appliance could ignite your clutter. Leaving piles of trash around also helps fires to spread quickly.

6. Be aware. Even a small amount of alcohol can slow reaction times and cause people to fail to hear sounds they normally would notice. "Under normal circumstances, a fire alarm needs to be 75 decibels for enough people to hear it," Bagby said. "One study showed that even having a couple drinks, where your blood alcohol content is .075, a much louder sound — 95 decibels — is needed to respond to a fire alarm."

Using a fire extinguisher

Even the most petite adults are capable of using the fire extinguishers placed in campus buildings, said Mark Bagby, University disaster coordinator. They just need to remember the acronym "PASS":

Pull the pin;
Aim at the base of the fire;
Squeeze the trigger;
Sweep from side to side.

Bagby recommended using a fire extinguisher only if the person is comfortable with the unit and the fire is no larger than the size of a small trash can. Otherwise, a person should simply evacuate the building and alert authorities.

Notables

Introducing new faculty members

The following are among the new faculty members at the University. Others will be introduced periodically in this space.

Elizabeth Borgwardt, J.D., Ph.D., joins the Department of History in Arts & Sciences as associate professor. The holder of both a doctorate in history from Stanford University (2002) and a juris doctorate from Harvard University (1990), she spent the 2006-07 academic year as a visiting scholar at the Charles Warren Center for Studies in American History at Harvard. From 2002-06, she was assistant professor and then associate professor of history at the University of Utah. Her teaching and research focus on the international dimensions to U.S. history, the history of human rights regimes and endeavors, international relations and comparative constitutional history. She received a Fulbright Distinguished Lectureship for research and teaching at the University of Heidelberg that will begin in spring 2008.

Daniel Bornstein, Ph.D., joins the Department of History in Arts & Sciences as the Stella K. Darrow Professor of Catholic Studies with a joint appointment in religious studies. His research focuses on religious life in late-medieval and Renaissance Italy, on varieties of religious practice, the role of women in Catholic institutions and, more broadly, on religion and civic culture. A recipient of a doctorate from the University of Chicago in 1985, he spent three years at the University of Michigan's Society of Fellows and three years at the University of California, San Diego, before joining the history department at Texas A&M University as assistant professor in 1989. He was promoted to associate professor with tenure at Texas A&M in 1994 and to full professor in 1999.

Gerrit De Geest, J.D., Ph.D., joins the School of Law as professor. He earned a juris doctorate in 1983, an educational master's degree in 1986 and a doctorate in 1993, all from Ghent University. Before joining the faculty, De Geest was a professor of law and economics at Utrecht University in the Netherlands. Past president of the European Association of Law and Economics, he is a member of the European Group on an Integrated Contract Law and of the Economic Impact Group of the Common Principles of European Contract Law. De Geest has published numerous books and articles in the fields of economic analysis of contract law, tort law and comparative law.

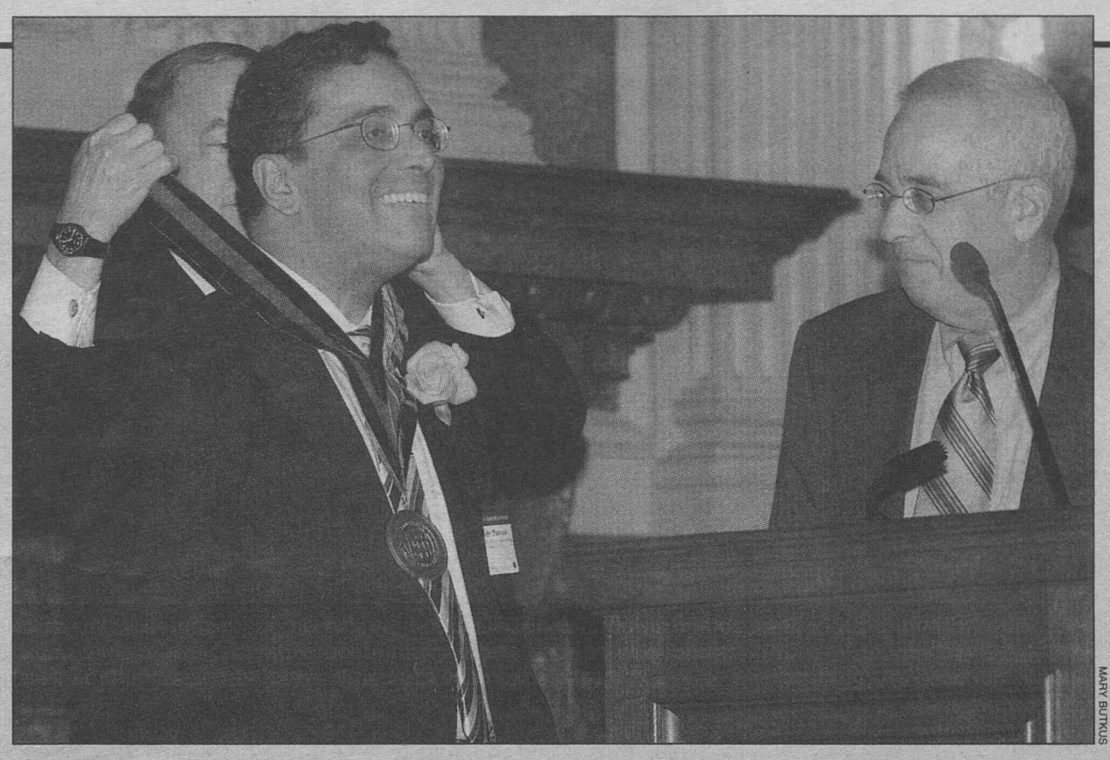
Michael Lewis, Ph.D., joins the Olin Business School as assistant professor of marketing. Lewis focuses his research on sports marketing, customer relationship management, revenue management and nonlinear and dynamic pricing. He earned his doctorate from the Kellogg Graduate School of Management at Northwestern University, where he won the MSI Alden G. Clayton Dissertation Proposal Award. Lewis also spent three years working for Northwest Airlines, and he taught at the University of Florida's Warrington College of Business Administration before coming to the University.

Anne Newman, Ph.D., joins the Department of Education in Arts & Sciences as assistant professor. She earned her doctorate from Stanford University in 2007 and a bachelor's degree from the University of Chicago. Her teaching and research interests lie at the intersection of political theory and education policy analysis, where she applies contemporary theories of justice and democracy to consider the ethical dimensions of policy issues. She is especially interested in the relationship between educational opportunity and political equality and the role of rights discourse and political activism in advancing education reform in urban communities.

Juan B. Peña, Ph.D., joins the George Warren Brown School of Social Work as assistant professor. He earned a master's degree in social work at New York University and a doctorate in social work from Columbia University. Before joining the University, Peña served as a senior instructor and postdoctoral research fellow at the University of Rochester Medical Center. Peña's professional interests focus on Hispanic adolescents, prevention of risk behaviors in adolescents and acculturation/immigration generation status.

Philip Sewell, Ph.D., joins the Performing Arts Department and the Program in Film and Media Studies in Arts & Sciences as assistant professor. He earned his doctorate from the University of Wisconsin-Madison in communication arts-media and cultural studies in 2007, his master's at the University of Texas at Austin in 1996 and his bachelor's degree at the University of Texas at Austin in 1993. For the past year, he has been a lecturer at the University in film and media studies, where he has taught courses on the history of electronic media, media cultures and race and ethnicity on American television. His research focuses on the history of the concept of "quality" as it was used toward various ends in the early development of television in the United States.

John Turci-Escobar, Ph.D., joins the Department of Music in Arts & Sciences as assistant professor. He earned a doctorate from Yale University and a bachelor's degree from Rutgers University. From 2004-07, he was assistant professor of music theory at the University of Georgia. His primary field of research is the late Italian madrigal. Secondary areas of interest include 19th-century chromaticism, classical form, the music of Astor Piazzolla and broader issues in music and meaning. He has presented his work at regional and national conferences and is currently writing a series of articles on the music of Carlo Gesualdo. He also is preparing a book on chromaticism in the late 16th-century madrigal.



MARY BUTKUS

New professorship in biology Himadri B. Pakrasi, Ph.D., receives a medal from Chancellor Mark S. Wrighton signifying his appointment as the George William and Irene Koechig Freiberg Professor of Biology in Arts & Sciences Oct. 2 in a ceremony at Holmes Lounge. Pakrasi was introduced by Edward S. Macias, Ph.D. (right), executive vice chancellor, dean of Arts & Sciences and the Barbara and David Thomas Distinguished Professor in Arts & Sciences. Pakrasi, who also has an appointment as professor of energy in the School of Engineering, directs the University's new initiative called the International Center for Advanced Renewable Energy and Sustainability (I-CARES). The professorship honors a distinguished faculty member in biology who has demonstrated leadership in research and teaching. It was established in 1983 by George Freiberg, an Anheuser-Busch executive who received a doctorate in microbiology from Washington University in 1917. Irene Koechig Freiberg received two degrees in Arts & Sciences from the University and taught at the School of Medicine from the 1920s through the 1950s.

Legomsky serving as research fellow in Singapore

BY JESSICA MARTIN

Stephen H. Legomsky, J.D., D.Phil., the John S. Lehmann University Professor, is serving a six-month appointment as a visiting senior research fellow at the Asia Research Institute of the National University of Singapore.

In addition to writing an article about the implications of asylum approval rates in the United States, Legomsky currently is completing a chapter for a book on comparative asylum policy and the rule of law. Cambridge University Press will publish the book in 2008. Legomsky's chapter examines the link between U.S. asylum policy and the rule of law.

In November, Legomsky will be spending one week in South Korea as the guest of the South Korean Minister of Justice. The minister has invited Legomsky to advise him and his staff on possible immigration reform legislation. While in Seoul, Legomsky will give lectures at three Korean law schools.

He also will be doing research on the role of family reunification in Singaporean immigration law and giving various presentations on a range of subjects at seminars sponsored by the Asia Research Institute and the National University of Singapore's law faculty.

Carnaghi recognized by state association

BY NEIL SCHOENHERR

Jill Carnaghi, Ph.D., director of campus life and assistant vice chancellor for students, was presented with the 2007 Richard Caple Professional Award from the Missouri College Personnel Association (MOCPA) at an awards ceremony Sept. 24.

"It's a great honor, as well as quite humbling, to be recognized by your peers," Carnaghi said. "It makes it that much nicer having worked with and having great respect for Dick Caple and all he models in our efforts to effectively serve students and to play a role in their growth and development."

Carnaghi

The Richard Caple Professional Award is given for significant contributions to research and practice in student affairs and/or the state association. It is open to students, faculty and student affairs professionals in the state of Missouri.

MOCPA is an association for student affairs professionals across the state. The purpose is to promote the learning and development of students enrolled in institutions of postsecondary education through the ongoing professional development of college student affairs administrators and student development educators, in accord with the purposes of the American College Personnel Association.

Clover

Research getting down to molecular level

– from Page 1

enzyme required to hydrolyze the cyanide. If something damages the cell, these two compounds come into contact with each other and free cyanide is released."

One gene, *Li*, encodes the enzyme, which is called linamarase; another gene, *Ac*, is responsible for the presence or absence of cyanogenic glucosides.

Olsen's findings reveal that plants that do not synthesize linamarase are lacking the *Li* gene altogether: The gene's DNA is absent from genomes of these plants.

Olsen and colleagues also are testing hypotheses on why acyanogenic plants occur in cold climates. One poses that there are fewer herbivores in colder climates.

"If a plant can get by without investing in all the resources it takes to be cyanogenic, it can concentrate those resources in other forms of growth and reproduction. Then it would be out competing with plants that are cyanogenic," Olsen said.

The second hypothesis explores the possibility of plant suicide.

"In hypothesis two, we question the role of frequent frosts," Olsen said. "The frosts could cause cell rupture and the release of cyanide leading to autotoxicity. If cyanogenic plants are poisoning themselves in cold climates, then those plants will be at a disadvantage."

To examine the second theory, Olsen and his colleagues are testing different types of clovers in freeze chambers at controlled temperatures to see if survival is higher for either acyanogenic or cyanogenic plants.

"The advantage of the clover cyanogenesis system is there's already so much known about its ecology," Olsen said. "What we're able to do now is get to the molecular level and look at the molecular basis of ecologically important variation."

Obituary

Terry, 69

Wanda Lee Terry, who also went by the name Wanda Harry, administrative aide in the Department of Music in Arts & Sciences from 1989-2004, died Wednesday, Sept. 19, 2007, in St. Louis. She was 69.

Washington People

Bedside to bench and back

Ferkol: a teacher, researcher and 'clinician at heart'

BY BETH MILLER

DILIP VISHWANAT

Thomas Ferkol Jr., M.D., director of the Division of Pediatric Allergy and Pulmonary Medicine and associate professor of pediatrics and of cell biology and physiology, gives patient Carli Kasten, 5, of Springfield, Mo., a chance to listen to his heart and lungs before he listens to hers. "I chose translational research because I'm a clinician at heart, and I am most interested in applying what we do in the laboratory to the patient," Ferkol says. "I am reminded why I do research every time I care for a child with cystic fibrosis or primary ciliary dyskinesia."

Growing up in northeastern Ohio, Thomas Ferkol Jr., M.D., lived among the Old-Order Amish communities. When he was young, his father taught physical education and art in a small school system in Geauga County, where many of his students were Amish. As an unexpected twist, Ferkol, a pediatric physician-scientist working on cystic fibrosis and other lung diseases in children, has found through patients he treats at St. Louis Children's Hospital that a rare genetic lung disease is common in Amish and Mennonite populations.

Ferkol, director of the Division of Pediatric Allergy and Pulmonary Medicine and associate professor of pediatrics and of cell biology and physiology, is one of a handful of pediatric pulmonologists in the country who study primary ciliary dyskinesia (PCD), an unusual cause of persistent wheezing and coughing in children. Estimated to occur in 1 of every 12,000 births, PCD is a genetic disorder that results in chronic infections of the respiratory tract.

Cilia are tiny, beating hair-like structures on the airway surface that protect the lung and move fluids, mucus and inhaled particulates out of the respiratory tract. In PCD, the cilia do not beat correctly. As a result, the impaired clearance of airway secretions leads to chronic bronchitis, which progresses to bronchiectasis, the weakening and widening of the passages, or even respiratory failure. About half of patients with PCD have reversed internal organs, called situs inversus, and males are usually infertile.

While leading the School of Medicine research team that is part of a national consortium investigating the genetic causes of PCD, Ferkol became fascinated by the discovery of PCD in several children and adults from rural Amish and Mennonite communities in the Midwest. Physicians in the National Institutes of Health-supported consortium are trying to understand the genetics of PCD in these families.

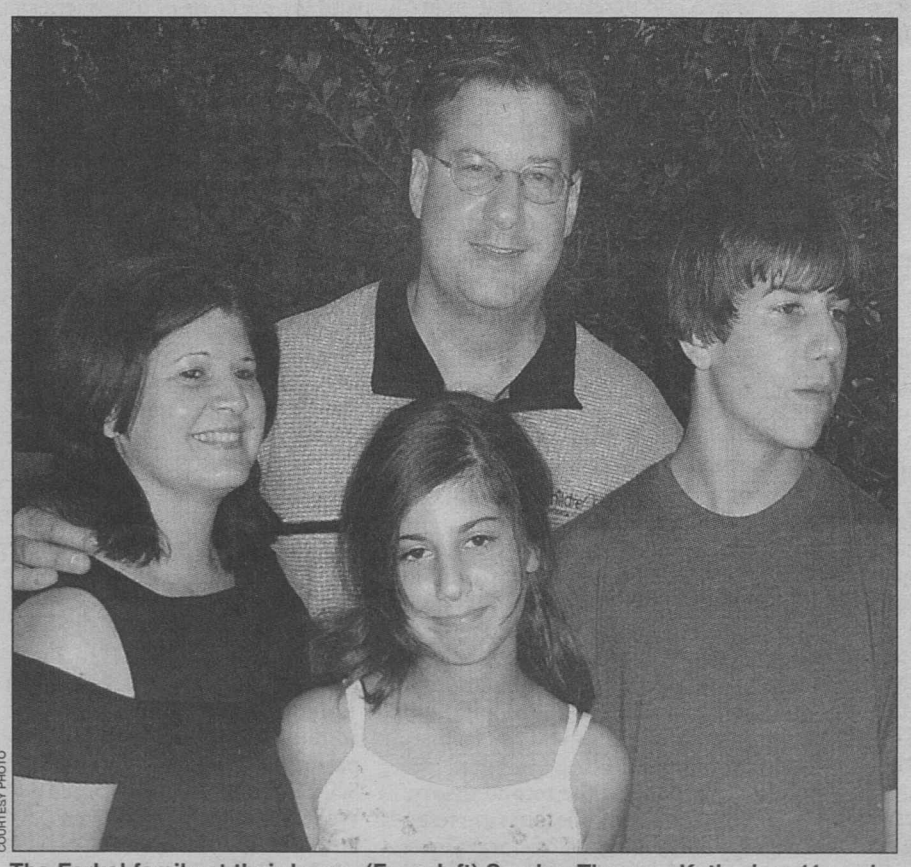
Their relative isolation and meticulous record-keeping make the Amish families ideal for genetic studies, Ferkol says.

"They have been very interested in helping us understand the clinical manifestations and genetics of PCD in their community," he says. "The parents all want to know how best to treat this disease in their children. I assumed that since we're dealing with a large consanguineous family that we'd be talking about a single gene and a single PCD-causing mutation, but, boy, was I wrong. The genetics are more complex than I had expected."

Ferkol was recruited to the Department of Pediatrics in 2000 as director of the Cystic Fibrosis Center at the School of Medicine and St. Louis Children's Hospital by Alan L. Schwartz, Ph.D., M.D., the Harriet B. Spoehrer Professor and head of pediatrics.

"Tom Ferkol is a gifted clinician, committed educator and leading investigator in the biology of cystic fibrosis and related disorders," Schwartz says. "Tom has brought the Cystic Fibrosis Center to a nationally prominent position. His appointment last fall as division director gives us the opportunity to continue to advance. We look forward to the many years ahead under his leadership."

While Ferkol remains co-director of the Cystic Fibrosis Center with Carolyn Cannon, Ph.D., M.D., and is very involved in the care of children with the disease, his research focus has increasingly shifted toward ciliopathies.



COURTESY PHOTO

The Ferkol family at their home. (From left) Sandra, Thomas, Katherine, 11, and Thomas, 14.

Passion for research

Ferkol said he has been interested in cystic fibrosis research since college.

While an undergraduate at Case Western Reserve University in Cleveland, Ferkol worked in a lab with researchers studying the role of *Pseudomonas aeruginosa* infections in cystic fibrosis patients.

"I was convinced then that I wanted to pursue a career in cystic fibrosis," Ferkol says. "But my interest began to shift from infectious disease to pulmonary medicine shortly after I arrived at the University of North Carolina for my residency. Tom Boat, M.D., the chairman of pediatrics then, and Margaret Leigh, M.D., gradually convinced me that if I wanted to study cystic fibrosis, I should be a pulmonologist.

"I chose translational research because I'm a clinician at heart, and I am most interested in applying what we do in the laboratory to the patient," he says. "The research that we do, ranging from the development of model airway systems to understand the pathogenesis of cystic fibrosis lung disease to application of alternative approaches for airway-specific drug delivery to the use of novel imaging studies that measure lung inflammation, could potentially be applied to patients.

"That's what is exciting to me. I am reminded why I do research every time I care for a child with cystic fibrosis or PCD," he says.

Since 2003, Ferkol and his colleagues have been involved in the Therapeutics Development Network formed by the Cystic Fibrosis Foundation to streamline testing of novel therapies to treat cystic fibrosis more effectively. Cystic fibrosis is the most common lethal, inherited disease of Caucasians and affects about 30,000 children and adults in the United States.

"While cystic fibrosis is a multisystem disease, affecting the pancreas, intestines, sweat glands and genitourinary tract, it's the lung involvement that is primarily responsible for much of its morbidity and shortens the lives of patients," Ferkol says. "But several newly developed drugs are showing promise, leading to hope that mutation-specific treatments and individualized therapies will be effective so these children will have longer, fuller lives."

Career change

Ferkol's path to become a researcher started out as a desire to be a teacher.

"As long as I can remember, I wanted to be like my father," he says. "I still do. When I was in junior high, I told my dad I planned to be a teacher like him. He laughed and said, 'Oh no, you don't want to do that.' So I responded, 'Well, I guess I'll become a doctor, then.' To this day, I have no idea why I said that."

The only physician in the family was Ferkol's great-grandfather, Charles "Pop" Morgan, M.D., a family doctor in the northern panhandle of West Virginia. Ferkol keeps a photo in his office desk drawer of his great-grandfather standing in front of the horse and buggy he used to visit patients.

"I guess I didn't listen to my father," Ferkol says. "Much of what I do is teach, though it is far different from what I imagined as a teenager.

"I truly enjoy my job because I have the opportunity to do many different things every day," he says. "But maybe it's because I have a short attention span."

Ferkol continues to collaborate on several projects with Leigh, professor and vice-chair of pediatrics at UNC.

"Tom has always been a great team player and organizer — as pitcher for the pediatric house staff and as pediatric chief resident at UNC, as director of the Washington University Cystic Fibrosis Learning and Leadership Collaborative and as site director for multicenter research projects," Leigh said.

"He has a distinctive style for all that he does, like his red high-top tennis shoes he wears on the softball field, his tiny handwriting and his expressive drawings that have appeared as emblems for organizations. Tom's bright, creative mind, matched with his equally quick wit, make all interactions with him informative, fun and memorable."

Thomas Ferkol Jr.

Education: Case Western Reserve University, B.A., 1981; The Ohio State University College of Medicine, M.D., 1985

Family: Wife Sandra; son Thomas, 14; daughter Katherine, 11

Hobbies: Spending time with family, sports

Travel: Last spring, the family went to Greece during spring break at his son's request. "I've always enjoyed ancient history, and I had never been, so I didn't need much convincing," Ferkol says. "The trip gave me an opportunity to revisit Greek mythology and see places that I only knew through my imagination."